

What is claimed is:

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1. A data communication system comprising:
means for transmitting data addressed to all substations, provided in the main station;
means for receiving said data, provided in the substations;
means for transmitting a message addressed to all substations after said data are transmitted, to inquire whether reception was normal, provided in said main station; and
means for transmitting a response message to said query message, only when said data could not be received normally, provided in said substations.
 2. The data communication system, according to Claim 1, wherein said main station receives said response message within a prescribed period of time after the transmission of said query message.
 3. The data communication system, according to Claim 2, wherein said prescribed period of time is the period until the time to start the next transmission of said data.
 4. The data communication system, according to Claim 2, wherein said main station determines that all of said substations were able to receive said data normally, when said main station does not receive said response message within said prescribed period of time.
 5. The data communication system, according to Claim 4, wherein said main station effects the next data

transmission when said response message is not received within said prescribed period of time.

6. The data communication system, according to Claim 2, wherein said main station determines that any of said substations was unable to receive said data normally, when said main station receives said response message within said prescribed period of time.

7. The data communication system, according to Claim 6, wherein said main station re-transmits said data when said response message is received within said prescribed period of time.

8. The data communication system, according to Claim 7, wherein said main station terminates the transmission of said data and effects the transmission of next data when said response message is received after the same data have been transmitted a prescribed number of times.

9. The data communication system, according to Claim 8, wherein said main station comprises means for changing said prescribed number of times.

10. The data communication system, according to Claim 1, wherein said substations, when said normally received data are received once more, scrap these data.

11. The data communication system, according to Claim 1, wherein said substations, when said data that could not be normally received are received once more, take up these data.

12. The data communication system, according to Claim 1, wherein there is one of said main stations and one or a plurality of said substations.

13. The data communication system, according to Claim 1, wherein said main station and said plurality of substations are connected by a common transmission line.

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